To whom it may concern,

My name is Petr Stepanov and I am writing to apply for the "Project Scientist" position at the UC DAVIS. I got my Ph.D. degree in Photochemical Sciences from the Bowling Green State University (BGSU) in May 2020. My CV is enclosed for your review and consideration. I found the position posted on Indeed.

As indicated on my resume during my PhD program I was working as a research assistant in a materials science research lab at BGSU. My advisor was Dr. Farida Selim. My research was aimed at the application of Doppler and lifetime positron spectroscopy (PAS) technique to study the following effects in materials:
• Defects and grain sizes in solids.
• Kinetics of positrons and positronium atoms in nano-powders.
• Oxidation and ortho-para conversion of Positronium atoms in liquids.

I have successfully assembled and maintained Doppler and lifetime positron spectrometers made from fast electronics (ORTEC, Canberra, Hamamatsu). I am familiar with single-photon counting techniques with high-purity Germanium detectors and scintillation-based detector systems.

On the other hand, I developed a number of open-source desktop software solutions for experimental data fitting and interpretation. I've used C++ and CERN ROOT framework with Qt for GUI, GNU and CMake makefiles.

After finishing my degree I got a postdoctoral position at the Catholic University of America. My principal investigator was Dr. Tanja Horn. Position was a remote. Instead I was working as a collaborator at the Thomas Jefferson National Laboratory. Under guidance of the Dr. Horn I completed multiple DOE funded projects such as:
• Utilized Geant4 Monte-Carlo simulation framework for prototyping and studying detectors and calorimeters for the Electron-Ion-Collider (EIC) project.
• Used Machine Learning (ML) techniques to perform binary classification of signals from a data acquisition
(DAQ) setup.
• Developed production ready software (CMake, CERN ROOT, Python, ) for the High-Performance Computing (HPC) Jefferson Lab environment for data analysis.

More information regarding my education, work experience and scientific publications can be found on my homepage https://petrstepanov.com

I believe with my background and experience in materials science and programming I will be able to make a valuable contribution at the The University of California. I would greatly appreciate the opportunity to visit, learn more about the position and see how I can contribute to the success of the project. I look forward to hearing from you.

Sincerely,

Dr. Petr Stepanov